

2. § 112

The Examiner rejected claims 12, 16, and 19, citing § 112, on the sole grounds that the specification does not teach how to construct large cavities in rock. Applicant respectfully traverses.

First, there is no citation to any evidence that it is not known in the art “to construct large cavities,” or that is even necessary to do so to practice the invention of the claims. It is the Examiner’s burden to establish a *prima facie* case for rejection. *In re Piasecki*, 745 F.2d 1468 (Fed. Cir. 1984). Pursuant to 37 C.F.R. § 1.104(d)(2), Applicant requests that the Examiner cite evidence for the foregoing stated and implicit factual basis for the rejection.

Further, there is no basis in the record for assuming that redistribution of mass in accordance with the present invention would need to be in a single, large, open cavity, like a massive mine, or even in a single place. See, e.g., *Chao*, ¶ 1. The invention contemplates that multiple locations could be used in which to positively place mass in accordance with the invention, including a combination of above ground and below ground locations, and including underground locations that are not open cavities, such as porous rock from which hydrocarbons have been removed.

Finally, the rejection does not address the efficacy of the invention, but instead assumes both a single, massive, open cavity deposit and a desired character of rotation that exceeds that which might be achievable with such a single deposit. The contention is one of degree that does not undermine the effectiveness of the invention.

3. §§ 102/103

Claims 11, 13-15, 17, 18, and 20 were rejected under 35 U.S.C. § 102 based on Darwin. Applicant respectfully traverses. Contrary to the recitations in the Office Action, Darwin does

not teach any of “selecting a desired character of rotation,” “calculating a moment of stability required to cause the desired character of rotation,” or “determining a position and mass of a compensating substance to effect the moment of stability and positioning the mass as called for in claim 11.” Further, Darwin does not teach placing any of solids or liquids in connection the foregoing. Darwin addresses generally the influence of geological changes on planet rotation, but Darwin states nothing about any positive steps to change axis of rotation to a desired rotation or to solve the problem identified in Applicant’s specification. To the extent the Examiner contends otherwise, Applicant respectfully requests that the Examiner specify the text in Darwin that the Examiner contends discloses each step in each claim rejected pursuant to § 102.37 C.F.R. §1.104(c)(2).

Claims 11-13 were rejected under § 102 based on *Hapgood*. Applicant respectfully traverses. Contrary to the recitations in the Office Action, *Hapgood* does not disclose “selecting a desired character of rotation,” “calculating a moment of stability required to case the desired character of rotation,” or “determining a position and mass of a compensating substance sufficient to effect the moment of stability and positioning the mass as called for in claim 11.” The text cited in *Hapgood*, in response to a letter concerning the influence of geologic change on planet rotation, does not teach or suggest any positive steps to change the axis of rotation to a desired rotation or to solve the problem identified in Applicant’s specification. *Hapgood* is merely a summary of Darwin, and the “redistribution” reference therein is to geological changes, not to the positive steps of the instant claimed invention.

Claims 14-20 were rejected under § 103 as obvious in view of *Hapgood*. For reasons stated *supra*, *Hapgood* does not teach that which is asserted in the Office Action. Second, in order to establish a *prima facie* case of obviousness, the Examiner must present a reference that

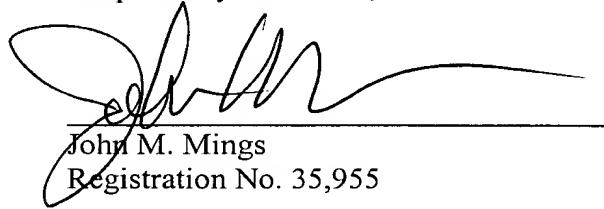
teaches or suggests that the missing elements should be combined with the teachings of *Hapgood*. This has not been done. Pursuant to § 1.104(d)(2), Applicant requests that the Examiner cited evidence to support each factual basis for the § 103 rejection.

Claims 11-20 were rejected under § 103 as obvious in view of *Chao*. Applicant respectfully traverses. There is no basis in the record for the Examiner's conclusion that it would be obvious to combine with *Chao* "selecting a desired character of rotation, calculating a moment of stability, determining a position and a mass, and positioning the mass." *Chao* merely exemplifies the problem addressed by Applicant's claims. Pursuant to § 1.104(d)(2), Applicant requests that the Examiner cite evidence for each factual basis for the § 103 rejection.

Applicant respectfully submits that the amendment places the claims in condition for allowance.

Applicant requests a three-month extension of time to respond to the Office Action. Please charge the required fee of \$460.00 to the credit card reflected in the form PTO-2038 attached hereto. Please charge any additional fee to the card, or in the alternative, to Fulbright & Jaworski L.L.P., Account No. 06-2375/09704227.

Respectfully submitted,



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Version With Markings to Show Changes Made

12. The method of claim 11 in which the position of the compensating substance is positioned in an underground cavity.